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09/826,625	04/05/2001	Chih-Wen Huang	YUSO-114	3979
7590	07/01/2004			
Raymond Sun 12420 Woodhall Way Tustin, CA 92782			EXAMINER LEE, CHEUKFAN	
			ART UNIT	PAPER NUMBER
			2622	3
DATE MAILED: 07/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,625

Applicant(s)

HUANG, CHIH-WEN

Examiner

Cheukfan Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-16 are pending. Claims 1 and 9 are independent.

2. The disclosure is objected to because of the following minor informalities:

The term "charge couple device" is used throughout the specification. The correct spelling for this standard term in the art is – charge-coupled device --. Applicant should make correction for this term throughout the specification.

3. The specification is objected to because of the following:

The specification does not show adequate support for an essential element, the feedback circuit, claimed in the claims 7, 8 and 16.

Page 4, lines 24-28 roughly describes the feedback circuit. That portion of the specification states the following:

"Or it uses a feedback circuit (not shown in the figure) according to the feedback of the induced voltage in the charge[-]couple[d] device 35 to drive a motor 37 for controlling the rotating angle of the adjusting wheel 36 (first reflecting mirror 331) until that the charge[-]couple[d] device 35 generates the maximum induced voltage."

Unless Applicant admits in the specification that such feedback circuit is conventional, known, or prior art, a detailed explanation of the feedback circuit should be provided in the specification. In the above statement, it is unknown what value of the induced voltage generated by the charge-coupled device is considered maximum since there is no comparison or a reference value provided in the specification. Further, it is unknown

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or unclear how the feedback circuit uses the induced voltage to drive the motor 37 to control the rotating angle of the wheel 36 and thus the mirror 331. As mention above, unless the feedback feature is known, adequate support must be provided in the specification to enable one of ordinary skill in the art to make and/or use the invention.

4. Claims 7, 8 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 7, 8 and 16 each claim "a feedback circuit", detailed support of which is not provided in the specification. Please refer to the objection to the specification addressed in section 3 above.

5. The drawings are objected to for the following reasons:

The drawings do not show the claimed "feedback circuit" claimed in claims 7, 8 and 16. The drawings should clearly show each feature or element claimed.

6. Claims 1-16 are objected to because of the following:

In claim 1, line 1 of the claim, the claim preamble is improperly written. The preamble recites "A focusing mechanism of scanner includes:". The claim body, however, recites components (the cover, for example) of a scanner that have nothing to

do with the focusing mechanism, in addition to components belonging to the focusing mechanism. A scanner including a focusing mechanism should be recited in the preamble;

line 1, "includes" should read – including --;

line 1 of the claim, "scanner" should read – a scanner --;

line 8 of the claim, "the light tube" lacks antecedent basis;

line 9 of the claim, "plural reflection mirrors" should read – the plural reflection mirrors – in order to refer the basis for this term already set forth on lines 6-7 of the claim.

lines 9, 10 and 13 of the claim, "charge couple device" should read – charge-coupled device --, a standard term in the art;

line 10, it is unknown whether it is a language error or something else, it seems that "a set of lenses" should be – a lens --;

line 12 of the claim, "should be" should be changed to – is – in order to be definite that the mirror is adjustable;

the grammar of the last two subparagraphs, i.e., "the image from ...;" and "the characteristic is:", are incorrect. Terminologies such as "wherein" should be used.

For example, the two subparagraphs may read as follows:

wherein the image from the reflection of the light emitted from a light tube to a scanned object is reflected by the plural reflection mirrors and then goes through the focusing of a lens, making an image in a charge-coupled device to make the charge-coupled device generate an induced voltage; and

wherein an angle of at least one reflection mirror in the plural reflection mirrors is adjustable to adjust the clarity of the image in the charge-coupled device. –

In claim 2, line 2 of the claim “scanner” should read – the scanner – to refer to the basis for this term set forth in claim 1 upon which claim 2 depends.

In claim 3, which depends on claim 1, “the test chart” lacks antecedent basis. The basis is set forth in claim 2 not claim 1.

In claim 4, line 2, the language is confusing. It is unclear whether the terms “a case” and “a light tube” are referring to “a case” and “[a] light tube” of claim 1;

line 3, “angle adjustable” should read – adjustable angle --;

grammatically, all languages after “wherein” should be part of the wherein clause, so on line 2, “tube. The reflection” should read – tube, the reflection --.

In claim 5, it is unclear whether any of “first reflection mirror”, “second reflection mirror” and “third reflection mirror” is referring to the adjustable mirror of claim 1 upon which claim 5 depends, or none of the first to third mirrors is referring to the adjustable mirror so that there are a total of four mirrors. There are only three mirrors shown in the drawings and explained in the specification.

Still in claim 5, with regard to “and there is at least one adjusting wheel set o one end at one of the reflection mirrors”, it is unclear to the examiner whether it is because of an error in this claim language or because the specification is not written adequately, the “at least one adjusting wheel set on one end of one” of the mirrors does not seem to be a valid limitation insofar as the invention is understood. As understood, only one

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adjusting wheel is set on one end at one of the three mirrors, not more than one adjusting wheel as claimed.

In claims 7 and 8, line 3, "charge coupled device" should read – charge-coupled device --.

In claim 9, "charge couple device" is used at several places in the claim. The standard term in the art is – charge-coupled device --.

Still in claim 9, line 1 of the claim, "scanner" should read – a scanner --;
line 3, "methods" should read -- method --, and "includes the following steps" should read – including the steps of --;

step (a), "emits" should read – emitting --; and

step (b), "reflecting" should read – to reflect --;

In claim 11, "the test chart" lacks antecedent basis. The term is first introduced in claim 10, not claim 9 upon which claim 11 depend. Further, it is again unknown whether it is a language error or something else that the word "inside" is used. Clearly, the test chart is placed outside the scanner case, not inside, unless Applicant consider the "cover" of claim 1 as part of the case such that when the cover is at its closed position, the transparent plate and the test chart are considered parts inside the case. Please clarify.

In claim 13, line 3 of the claim, "can make" should read – makes --. That is because an image is form, no matter the image is reflection image in the CCD is focused (clear) or not.

In claim 16, line 2, "can adjust" should read -- adjusts --, since "can adjust" means that the circuit may not actually adjust the angle but just can adjust it; and

line 4, "charge couple device" should read -- charge-coupled device --.

Claims 2-8 and 10-16 are objected to as being dependent upon an objected base claim.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4-6, 9, and 12-15, insofar as the claims are understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Tang (U.S. Patent No. 6,507,416).

Regarding claim 1, Tang discloses a scanner having a focusing mechanism and a focusing method. The scanner comprises a shell case or frame (1 in Fig. 1), a manuscript plate on which a manuscript or original document or object is placed, a cover for covering the document, and a case (chassis 5). Contained in the chassis (5 in Fig. 4A) are a plurality of mirrors (523a, 523b and 523c), a lens unit (525), a CCD (charge-coupled device) (527) and a mirror angle adjuster (525). Support on or by the chassis (5) is also a light source (521) for illuminating the document on the transparent plate (34). Light emitted from the light source and then reflected by the document is

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reflected by mirrors (523a, 523b and 523c) to the lens unit (525) and then is focused by the lens unit onto the CCD (527). The mirror adjuster (529) rotates the mirror (523a) by an angle appropriate to produce a focused image of a document line in the CCD (527).

Regarding claim 2, the document (2) placed on the transparent plate (34) reads on the claimed test chart since the document (2) is used in the focus adjusting process.

Regarding claim 4, insofar as the claim is understood, the case (chassis 5 in Fig. 4A) contains the light source (521) for illuminating the document (2). The angle adjustable mirror (523a) is inherently connected to the case (5) (Figs. 4A and 4B).

Regarding claims 5 and 6, insofar as the claim is understood, the mirrors (523a, 523b and 523c) reads on the claimed first, second and third mirrors, respectively. Two adjusting wheels (529), making up a set (529), are two ends of the (first) mirror (523a) (Fig. 4B). Claim 5 recites "there is at least one adjusting wheel (or wheel set)", where as claim 6 recites "there is an adjusting wheel".

Claims 9 and are rejected as being method claim corresponding to the rejected apparatus claims 1,

Regarding claim 12, the light source or tube (521) is considered inside the case (chassis 5).

Regarding claim 13, see lens (525 in Fig. 4A). The claimed limitations are met by Fig. 4A, noting the optical path from the document (2) to the CCD (527).

Regarding claim 14, the mirrors (523a, 523b and 523c) read on the claimed first, second and third mirrors. It is inherent that the mirror (523a) is an optimum choice

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among the mirrors for focus adjustment since it is the closest of all mirrors to the document (2) in the optical path.

Regarding claim 15, the two round gears at respective ends of the mirror adjuster (529) are inherently turnable by hands to adjust the angle of the mirror (523a) (col. 3, lines 15-20).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (U.S. Patent No. 6,507,416) in view of known art.

Regarding claim 3, Tang discussed for claim 1 above does not explicitly disclose that the document or test chart (2) is a black and white spaced in-between chart. However, the examiner took Official Notice of the fact that such chart having black and white stripe pattern thereon is notoriously well known in the art and is a standard test chart for focusing because of its high-contrast property. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a black and white stripe pattern chart as the test chart in Tang to provide a high-contrast image for focusing.

Claim 10 is rejected as being a method corresponding to the rejected apparatus claim 3.

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Regarding claim 11, insofar as the claim is understood, the document or test chart (2) is inside the scanner.

11. Claims 7, 8 and 16, insofar as the claims are understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (U.S. Patent No. 6,507,416) in view of Steinle et al. (U.S. Patent No. 5,646,394).

Regarding claims 7, 8 and 16, Tang discussed for claims 5, 6 and 9 above does not disclose a feedback circuit for controlling the rotating angle of the mirror as claimed. However, such feedback feature is taught by Steinle et al. In the original document scanner of Steinle et al. comprising a light source, a plurality of reflecting mirrors, a lens, a CCD sensor, an actuator (motor), and a microprocessor, the angle of one of the mirrors, reflecting mirror (216), is automatically controlled by the microprocessor (350) using closed loop (feedback circuit) that feeds back a CCD output signal (strength) to control the actuator (motor 302) to control the rotating angle of the mirror (216) in order to achieve the maximum value, which is predetermined and considered a default value (Figs. 1, 2, 6, 7, and 8, col. 6, line 15 – col. 7, line 40).

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Christensen (U.S. Patent No. 6,147,343) discloses a photoelectric imaging method and apparatus for compensating for temperature-induced scan line drift in a photoelectric imaging apparatus.

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Bernasconi et al. (U.S. Patent No. 6,233,063) discloses a flatbed scanning system having an adjustable mirror.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (703) 305-4867. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
June 21, 2004


Cheukfan Lee